ACCESSION #: 9609250155
LICENSEE EVENT REPORT (LER)

FACILITY NAME: Kewaunee Nuclear Power Plant PAGE: 1 OF 18

DOCKET NUMBER: 05000305

TITLE: Spurious Reactor Trip During Surveillance Testing
EVENT DATE: 04/02/96 LER #: 96-003-01 REPORT DATE: 09/20/96

OTHER FACILITIES INVOLVED: Kewaunee DOCKET NO: 05000305

OPERATING MODE: N POWER LEVEL: 098

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR SECTION:
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
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COMPONENT FAILURE DESCRIPTION:
CAUSE: X SYSTEM: JC COMPONENT: 94 MANUFACTURER: W12
REPORTABLE NPRDS: Y

SUPPLEMENTAL REPORT EXPECTED: NO

ABSTRACT:

On April 2, 1996, with the reactor at 98 percent powers Surveillance Procedure (SP) 48-003F, "Nuclear Power Range Channel 2 (White) N-42 Monthly Test," was being performed. During the performance of the procedure, a spurious reactor trip occurred. The plant response to the trip was as expected.

The cause of the trip was a set of electrically open contacts located on the Train A Positive Rate trip matrix. The open contacts completed the two out of four trip logic when a test signal was injected into Channel 2 (White) N-42 as part of SP 48-003F. Since the contacts visually appeared to be closed, they were found by measuring the voltage across the contacts. [Redline: A root cause could not be conclusively determined; however, two potential causes for the open contracts are debris being lodged between the contact surfaces or oxidation of the contact surfaces.]

The relay causing the reactor trip was replaced. The new relay was tested using the appropriate sections of SP 47-062A, "Reactor Protection Logic Train A Test." This test confirmed the new relay was working properly. After the plant was returned to power, SP 47-062A, "Reactor Protection Logic Train A Test," and SP 47-062B, "Reactor Protection Logic Train B Test," were performed with acceptable results.

END OF ABSTRACT

DESCRIPTION OF EVENT

This report describes a spurious reactor [RCT] trip that occurred at 1000 hours on April 2, 1996, while the reactor was at 98 percent power. The trip occurred during the performance of Surveillance Procedure (SP) 48-003F, "Nuclear Power Range Channel 2 (White) N-42 Monthly Test." The trip occurred when the test current for Channel 2 N-42 was being increased from normal (98 percent) to 120 percent power.

SP 48-003F tests the protection circuitry associated with the Nuclear Instrumentation (NI) system Channel 2 N-42 [Redline:] on a monthly basis. This SP tests one of the four power range channels required to provide the two out of four reactor trip protection [JC] logic. As part of the test sequence, a simulated reactor power signal is increased from normal power (98 percent) to 120 percent to verify calibration of various circuits. As Instrument & Control (I&C personnel increased the test power signal, a positive rate signal occurred causing the reactor trip.

Upon identifying a reactor trip had occurred, the operating crew entered Integrated Plant Emergency Operating Procedure E-0, "Reactor Trip or Safety Injection. " The plant response to the trip was as expected. The transient caused a shrink in pressurizer [PZR] inventory which actuated letdown isolation. Letdown automatically isolates when pressurizer level is at 18.3 percent or below. The auxiliary feedwater (AFW) system actuated due to low steam generator [SG] levels. The starting of the AFW system also caused steam generator blowdown isolation to occur. All the above actuations occurred as expected given the plant response to the transient. No problems were encountered by the operators while performing the trip response and recovery procedures.

At the time of the trip, I&C personnel reviewed SP 48-003F and verified no procedural errors had occurred. A review of the sequential events recorder (SER) printout indicated the NI system had caused either an overpower or positive rate trip from Train A of reactor protection. When several reactor trip relays were physically inspected, the reactor trip relays associated with the Train A positive rate trip were found de-energized. A visual inspection did not find any misaligned contacts on the Train A positive rate reactor trip relays. The two out of four positive rate trip matrix was then reviewed to determine which contacts could have caused the reactor trip (see Figure 1). Knowing that the signal from the SP was still being injected into Channel 2 N-42, and that none of the suspected relays had cycled during the plant transient, I&C measured voltages across the contacts which made up the trip matrix. Contacts four and eight on relay NC41U/XA (Channel 1 N-41) measured 120 volts dc. This indicated the contacts were electrically open even though they visually appeared closed. The open contacts on the relay in Channel 1 N-41 and the signal injected for Channel 2 N-42 made up the two out of four coincidence logic which caused the reactor trip breakers to open. This inspection confirmed that positive rate[Redline: ,] not overpower[Redline: ,] was the cause of the trip.

Channel 1 N-41 had been tested with SP 48-003E, "Nuclear Power Range Channel 1 (Red) N-41 Monthly Test," prior to starting SP 48-003F. It appears contacts four and eight on relay NC41U/XA did not electrically [Redline: close] after being opened during the N-41 test. All other contacts on relay NC41U/XA made up properly after the test since no annunciators, SER points, or status lights were noted as abnormal. Surveillance tests the previous month did not have any failures caused by electrically open contacts. Therefore, the failure of the contacts to electrically [Redline: close] most likely occurred during the relay's change of state during SP 48-003E earlier that same day.

After the plant was stabilized and the trip recovery had been complete, I&C personnel replaced the relay causing the trip. Applicable sections of SP 47-062A, "Reactor Protection Logic Train A Test," were

performed to test the relay prior to start up. All testing performed confirmed no open contacts existed. When the plant reached 98 percent power, the I&C group performed a full SP 47-062A, "Reactor Protection Logic Train A Test, and a full SP 47-062B, "Reactor Protection Logic Train B Test. Both trains tested satisfactory. [Redline: It should be noted that the failed relay had been installed for only about one year.]

[Redline: While removing the faulty relay, precautions were taken to isolate the failure after the trip. When the electrically open contacts were found, the relay armature was wired in the failed position such that the contacts could not change state. Contact resistance was measured and remained high throughout relay removal. However, when the relay was physically changed from the vertical to the horizontal position, the open contacts made up electrically. It is suspected the change in relay position caused the knife edge of the contact to move across the contact surface. This most likely removed the mechanism preventing the contacts from electrically closing.]

CAUSE OF THE EVENT

The cause of this event was a set of contacts on relay NC41U/XA failing to electrically [Redline: close] after surveillance testing. The open contacts, combined with a simulated positive rate trip signal from surveillance testing being performed on N-42, made up the two out of four logic for the [Redline: Train] A [Redline:] positive rate signal causing the Train A reactor trip breaker to open. [Redline: Potential causes listed in the original LER submittal included foreign material or debris, installation practices, oxidation, parallel contacts in a low current application, and physical contact misalignment. The root cause investigation took an in-depth look at each potential cause using both internal and external resources. The investigation eliminated several causes; however, two potential causes could not be discounted. These potential causes are debris and oxidation.]

[Redline: There are two potential sources of debris. The first is dust or debris that may have been disturbed during maintenance activities above or inside the relay cabinets. The second potential source is debris created during the relay installation process. Debris from above the cabinets may be coming from cable trays and penetrations in the upper portion of the relay room. The opening and closing force of the relay may provide the mechanism for the migration of this debris within the relay contact block as well as to other relays. During the relay vendor's site visit, a walk through of the relay room was performed. The insides of the cabinets were found to be dusty but not considered "dirty or gritty." The Westinghouse BF relays are normally used in industrial and manufacturing applications where environmental conditions are much more severe than that of the relay room. Therefore, the amount of dust observed would not hinder the performance of the BF relay. Potentially more significant were the pieces of wire insulation, wire tags, and other minor debris that were found in the bottom of the relay cabinets.

The second potential source of the debris is the phenolic body of the relay which can be scraped during the installation process. Two relays were disassembled for visual inspection during the vendor's site visit, one of which was the relay causing the trip. During the disassembly, small pieces of phenolic fell out of the relay's contact blocks. It appeared some of the phenolic pieces were scraped off earlier and were resting in the contact block while others were made while the relays were being disassembled. These small phenolic pieces may be able to insulate the contact surfaces if caught between them. Visual inspection of the contact block revealed the phenolic in the area around the terminal screws was scraped. Debris appeared to be coming only from the contact block and not from the coil. The visual inspection by the vendor did not reveal any excessive wear of other internal components that could create the debris. During the walkdown of the relay cabinets, the vendor and the licensee also observed a small amount of phenolic scrapings on the floor and Panduit [Trademark] surfaces within the cabinets. It is suspected that installation and removal of the relays could produce the phenolic debris. Installation practices were reviewed as part of the corrective actions following the trip.

Additional information on how installation could contribute to phenolic debris is described in corrective action number eight.

Tarnishing and offgassing were eliminated as potential causes during the root cause investigation. The relay causing the trip and a spare relay form the Kewaunee warehouse were sent to an independent lab for testing. Contact resistance tests were performed for both relays. During this testing the amount of current being passed through the contacts was limited to minimize the effect of removing any oxidation that may have been present. The relay was cycled approximately six times. No problems were observed during the test. The lab then disassembled the relay and used a stereo microscope to examine contact surfaces for any pits, foreign contamination, metallurgical decomposition, or oxidation. Microphotography was used to obtain photographs (magnified 32 times) to compare the contacts of the spare and trip relays. The lab found no evidence of oxidation, tarnish, or offgassing on the relay causing the trip. The fixed contacts displayed a small burnished area corresponding to the seating of the knife edge. The remaining contact surfaces of the relay causing the trip were clean, indicating no oxidation. However, the contact surfaces of the spare relay did show signs of tarnishing. The tarnish is not unusual for a relay in storage and can be removed by manually cycling the relay. It should be noted that the storage environment of the spare relays meet the recommendations of the vendor and that the vendor had no further recommendations. KNPP believes that tarnish and any film caused by offgassing would have survived the shipping process as evidenced by the tarnish on the spare relay. However, it is possible the oxidation may have been disturbed during shipment to the lab. In order to maintain the relay in the state it was discovered, the relay was shipped with the relay armature wired in the energized position. While this ensured the relay was maintained as similar as possible to its failed state, this method of shipment also allowed the failed contact pair to physically touch during shipping. This could have disturbed any oxidation that may have been present. Therefore, even though the lab found no evidence of

oxidation on the contacts, the findings were not considered conclusive enough to rule out oxidation as a potential cause.

While no direct evidence of oxidation was discovered, oxidation remains a potential concern due to the following:

1. low current application due to parallel contact design of the Reactor Protection System (RPS) trip matrix,

2. lower current draw of the new NBFD relays downstream of these contacts,

3. dry cycling of the contacts between surveillance intervals,

4. the use of silver alloy contacts and,

5. infrequent cycling under load.

Each of these conditions makes the contacts more susceptible to contact oxidation because little or no arcing is occurring when the contacts are closed. An appropriate amount of arcing may be required to clean the oxidation and tarnish that may adhere. For the removal of tarnish, mechanical wiping appears to be sufficient, as noted in the independent lab report. However, it is uncertain as to the effectiveness of mechanical wiping on removing oxidation sans electrical arcing. In order to obtain more conclusive information for in-plant use, KNPP will be monitoring several RPS relays for contact degradation during surveillance testing and designing an experiment in an attempt to accelerate the oxidation process on spare relays.

Physical misalignment of the relay contacts was also eliminated from the root cause investigation. As noted earlier, the visual inspection of the Train A positive rate reactor trip relays immediately following the reactor trip did not find any misaligned contacts. When the failed contacts were found, they visually appeared closed. The vendor inspected the physical characteristics of the relay causing the trip during the site visit. The vendor representative found no evidence of component binding. Additionally, the vendor mass produces the parts

for these relays by die punching and mold methodology. These processes typically produce little variation (if any) from relay to relay. Therefore, the concerns with interferences and tolerances of the relay's part are minimal. The floating contact design does allow some contact movement. However, the amount of movement discovered was expected for this design and helps the knife-edge clean the contact surface. Additionally, the contacts' surfaces showed little wear.

The application of this relay was also reviewed by the vendor. Both the low current application due to parallel contacts and the use of silver alloy contacts do provide for the possibility of contact oxidation. Inspection by an independent lab found the contact surfaces of the relay causing the trip were clean, indicating sufficient cycling to remove non-conductive films. The parallel contact design is necessary to perform the RPS logic function. The vendor considers the parallel contact design and the silver alloy contacts suitable for this application. The vendor stated that they have no recommended alternative relay for this application.]

ANALYSIS OF THE EVENT

This event is reportable in accordance with 10 CFR 50.73(a)(2)(iv) as an event that resulted in the actuation of the Reactor Protection System (RPS). This event was also reported on April 2, 1996, in accordance with 10 CFR 50.72 (b)(2)(ii) as an actuation of the RPS. [Redline: This report is being submitted to provide supplemental information pertaining to this event.]

The failure of a set of contacts to electrically close results in partial completion of a trip signal in a RPS logic matrix. In the event of a second signal from a different protection channel, the RPS logic matrix is completed causing a reactor trip. With this failure mode, the system can operate to accomplish its design function (i[Redline: .]e., trip the reactor when sensing off-normal conditions). Therefore, the impact of this event is an unnecessarily

induced plant transient. Although the transient is undesired, it is within plant design. Therefore, the safety implications are minimal. Also, corrective action four described below reduces the likelihood of a trip occurring during surveillance testing. There was no negative impact on public or plant personnel's health or safety during this event.

CORRECTIVE ACTIONS

The following corrective actions have been [Redline: or will be] taken:

1. The faulty relay was replaced. Prior to installation, contact resistance of the new relay was checked. Contact resistance was low indicating no oxidation [Reline:] or debris on the new relay contacts. After installation, the new relay was tested using applicable sections of SP 47-062A. Test results were acceptable.

2. The relay vendor was contacted prior to restart to discuss the relay problem. The vendor was unaware of similar problems in the industry. [Redline: The vendor later made a site visit to provide information on this style relay (a Westinghouse BF66F). The vendor performed a visual inspection of the failed relay, a walkdown of the relay room and the relay cabinets for cleanliness, and provided information on the design and manufacture of the relay.

3. Following the replacement of the failed relay,] a visual inspection of all Train A and B [Redline: RPS] relays was performed. The inspection revealed four misaligned contacts[Redline: , one wire not fully captured, and one screw resting on a contact block. Four of the] contacts actuated annunciators and [Redline: two] actuated computer point [Redline: s]. None initiated a trip signal. [Redline: These problems were documented using the plant

incident reporting system and have been repaired with the exception of the wire not being fully captured. This wire has positive contact, is secure, and has been proven to fulfill its functions (actuates an annunciator). Therefore, due to the risk of inducing a plant transient while the reactor trip breakers are shut, the wire will be repaired during the next outage.]

4. The reactor protection surveillance procedures were revised to reflect a change in test sequencing. [Redline: Although the new testing method does not prevent the probable root causes, it will detect open contacts which would cause unnecessary plant transients during testing]. Circuit operation and the new surveillance method are discussed in the following paragraphs.

Kewaunee has four analog protection channels designated Red, White, Blue, and Yellow corresponding to channels I, II, III, and IV, respectively. The Reactor Protection System (RPS) logic combines inputs from the four analog channels to provide a trip signal to the reactor trip breakers when two or more channels sense certain off-normal conditions. Each analog channel sends two signals, one to Train A and one to Train B of the RPS logic. During power operation, the analog channels keep the relays in the RPS logic energized. When a trip point is sensed by two or more of the analog channels, the Reactor Trip (RT) relays de-energize. This opens the reactor trip breakers allowing the control rods to drop into the core.

The Train A and B reactor trip breakers are in series and each breaker receives a trip signal from its own logic train, A or B. Either breaker opening interrupts power to the rod drive mechanisms. In addition, a bypass breaker is in parallel with each trip breaker. This allows a trip breaker to be removed from service for testing, maintenance, or logic testing, without shutting down the unit. An

interlock prevents both bypass breakers from being in service at the same time. The logic to trip the Train A bypass breaker is generated from Train B protection and vice versa.

An example of the new surveillance method as it is used for the Red analog channel is described as follows. The bypass breaker for the Train A reactor trip breaker is placed into service. The logic to trip the Train A bypass breaker is generated from Train B protection. Therefore, in the event an inadvertent trip signal is generated while testing Train A logic, the Train A reactor trip breaker opens, but a reactor trip will NOT occur because the Train A bypass breaker is in service. While the Train A bypass breaker is in service, a Red channel Train A trip signal is generated for each protective function (e.g., pressurizer high level, positive rate trip, etc.) about to be tested using the installed test circuits associated with Train A reactor trip logic. If the Train A reactor trip breaker does not open, this proves no other Train A channel (White, Blue, or Yellow) contact is open which would have caused a trip condition during testing. The Train A bypass breaker is then taken out of service and the process is repeated for Train B protection. This process verifies a false signal from the White, Blue, or Yellow channel does not exist in either Train A or B of the RPS logic. Therefore, when the Red channel is placed into test, a reactor trip will not occur. However, the design of the test circuitry ensures that if an actual trip condition existed, the reactor would still be shutdown through automatic action.

When the Red channel Train A and B protection logic have been checked with the appropriate bypass breaker in service, the sections of all reactor protection SPs for Red channel are performed. This sequence is repeated for the White, Blue, and Yellow channel surveillance tests.

5. The relay causing this trip and a new relay from warehouse stock were sent to an independent lab for testing. The lab performed a detailed inspection of the contact surfaces and electrical tests. [Redline: The contact surfaces of the relay causing the trip showed no signs of oxidation, tarnish, or offgassing.] Both relays functioned properly when cycled.

6. Other plant specific incidents occurring in the [Redline: RPS] involving indicating lights, annunciators, and computer points not actuating as planned [Redline: were] reviewed to determine if any similarities [Redline:] to the April 2, 1996 trip [Redline: existed. Four events, not including the April 2 trip, occurred after the refueling outage of 1995. A total of nine events were identified between 1992 and 1996. A review of SPs performed from plant start-up until 1992 did not uncover any similar events. During the 1994 and 1995 refueling outages, two replacement projects occurred in the RPS relay cabinets. In 1994, the coils of the Westinghouse NBFD relays were replaced due to concerns with cracking (the original BFDs were replaced with NBFDs between 1988 and 1989). The original Westinghouse BF relays where replaced with the newer style BF during 1995. The two large scale replacement projects may have contributed to debris being disturbed or created in the cabinet. This may be reflected in the number of similar events occurring after 1995.

Since the similar events began in 1992, an outage activity list was reviewed to determine if large amounts of cable pulling or penetration work was done during 1992. Although there were several activities being performed in the relay room, the number of these activities or their scope did not appear to be unusual or different from previous years. It can not be conclusively determined if there was a greater source of debris during that outage.

Relay rack location was traced for all relays experiencing similar failures. Both the BF and the NBFD relays experienced this same failure. Most of the relays were located directly below or in the vicinity of a relay that had been changed out. It should be noted that two of the relays that failed in 1995 were located on the very top row in the relay cabinet. No conclusion could be drawn as to whether these failures are indicative of debris coming through the cable penetrations or from debris created by installation.]

7. The Nuclear Plant Reliability Data System (NPRDS) database was reviewed for failures of the specific style relay as well as relays using the same or similar contact block. Plants that appeared to have similar failures were contacted for further information to support the root cause investigation. [Redline: Many of the failures experienced at other plants were related to the age of the relays or debris. Most plants also had the older style of Westinghouse BF relays and were replacing relays on an as-fail basis where as Kewaunee performed large scale replacements of Westinghouse NBFD and BF relays in the RPS. Plants contacted did offer suggestions that penetration work and older wire labels can be a potential source of debris.]

8. Installation practices [Redline: were] reviewed to determine if they have an affect on the relay failure. [Redline: Several factors suggest that installation of the relay could be creating debris. The following is a list of factors that could contribute to debris creation.

a. An unusually narrow screwdriver is necessary to terminate a wire without scraping the sides of the relay.

b. Wider, thicker lugs, which could scrape the sides of the relay, were used for some terminations.

c. The square washer placed over the wire lug could scrape the phenolic if it is twisted.

d. Inserting the termination screws in a cocked position or tugging on wires while terminating them could create threads, and subsequently debris, in the plastic termination holes.

e. The stationary clips, which are friction fit, often fall out during installation. The reinstallation of the clip can scrape the phenolic sides of the relay.

f. Two ring lugs that are not installed back to back on the same termination may not allow the screw to fully engage with the nut and position itself down into the termination hole in the phenolic. This makes termination less secure. With the screw in this configuration, pulling or tugging on the wire can cause the screw to move back and forth, scraping the phenolic around the termination hole.

Exacerbating these potential causes of debris is the physical location of the relay in the rack which can make installations more difficult. Although each installer has differing opinions on what makes installation difficult, difficulty during installation can be caused by the number of contacts used on a relay, the location of the relay in the rack (high or low), whether or not there are relays on both sides (cramped conditions), and the back layer of contacts being harder to terminate than the front layer of contacts for the relay.

To decrease the amount of debris that may be generated during installation, the list of potential installation problems will be incorporated into general training for I&C technicians. Installation procedures used for relay replacement will include new cautions to help minimize debris creation and emphasize cleanliness.]

9. Other plant applications of this relay [Redline: were] reviewed to determine the potential consequences of a similar failure. This style of relay is used in the Engineered Safety Feature (ESF) system. [Redline: All of the

BF and NBFD relays in the ESF racks had also been replaced during the 1993 refueling outage. However, a review of the performance of the relay in the ESF racks found no similar failures. The difference between the ESF relays and the RPS relays include:

- The ESF design requires its periodic tests to close relay contacts in order to energize another relay. This is the opposite of the RPS design which requires relay contacts to open in order to de-energize another day. The ESF design avoids the low current application that occurs in the RPS which makes ESF relay less susceptible to any film building up on the contact surfaces.

- The ESF relays were replaced in a different year than the RPS relays. While installations practices were similar, if not identical, it is possible that the ESF replacements did not generate debris that affected its function.

In conclusion, the use of the BF style relay in the ESF system has been found to be extremely reliable. During the root cause investigation, no evidence was found that indicated this reliability was in jeopardy. In addition, many of the corrective actions will further ensure this reliability (e.g., improved housekeeping practices, improved training, and improved installation practices).

10. Extra effort has been made to clean the relay room and the relay cabinets since the reactor trip on April 2. It is the intent of the I&C department to continue to maintain the cleanliness of the area. Vacuuming of the relay room floor with a high efficiency vacuum has already been completed. Scheduling cards have been submitted for cleaning the relay room and cabinets once every operating cycle.

It was determined that blowing air over or vacuuming the contact block to remove debris was not a viable solution. Past experience at KNPP and discussions with the relay manufacturer indicate that any attempt to individually clean installed relays will create more problems than it will correct. This is due to the floating contact design which makes the floating contact easy to dislodge when cleaning.

11. A Kewaunee Assessment Process (KAP) evaluations has been initiated to evaluate closing the tops of the relay cabinets. This may help minimize debris intrusion caused by penetration or cable work performed above the cabinets.

12. Every refueling outage a visual inspection of the RPS relay contact blocks will be performed. The purpose is to look for debris or any other conditions that could present problems for proper relay actuation.

13. Guidance on removing a relay has been drafted and will be available in the event of a similar occurrence on any contact in the RPS. This guidance is designed to minimize the risk of disturbing any debris or oxidation that may be interfering with proper relay operation in order to facilitate a root cause analysis.

14. In order to obtain more conclusive information for in-plant use, KNPP will be monitoring several RPS relays for contact degradation during surveillance testing and designing an experiment in an attempt to accelerate the oxidation process on spare relays.]

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ADDITIONAL INFORMATION

Equipment failures:

Westinghouse BF66F style relay.[Redline:]

SIMILAR EVENTS

One recent similar event was identified involving a relay in the RPS. The event occurred on September 5, 1995, and is documented by LER 95-005-00 submitted to the NRC on October 5, 1995. During this event, the reactor tripped while performing SP 47-10A, "Channel 1 (Red) Reactor Coolant Temperature and Pressurizer Pressure Instrument Channel Test. " The root cause was unknown at the time of the report. The failure was suspected to have been misaligned contacts which produced a trip relay actuation signal. The misaligned contacts, coincident with the surveillance testing, completed the two out of four pressurizer low pressure reactor protection trip logic.

Other possible similar incidents involve problems encountered with indicating lights, annunciators, or computer points. In most incidents, cycling the relay cleared the problem. These events are documented in surveillance procedure exception reports and [Redline: were] reviewed [Redline: as part of the root cause investigation. Additional information on these events was provided under corrective action number 6.]

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Figure 1 "Positive Rate Trip Matrix" omitted.

ATTACHMENT TO 9609250155 PAGE 1 OF 1

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September 20, 1996 10 CFR 50.73

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Ladies/Gentlemen:

Docket 50-305
Operating License DPR-43
Kewaunee Nuclear Power Plant
Reportable Occurrence-96-0031

Reference: 1) Letter from M.L. Marchi (WPSC) to NRC Document Control Desk, dated May 2, 1996 (Licensee Event Report 96-003-00).

In accordance with the requirements of 10 CFR 50.73, "Licensee Event Report System," reference 1 was submitted. The attached is supplement Licensee Event Report (LER) 96-003-01. Additional information being provided is identifiable by redlining throughout the document.

Sincerely,

M. L. Marchi
Manager - Nuclear Business Group

LMG

Attach.

cc - INPO Records Center
US NRC Senior Resident Inspector
US NRC, Region III

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